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IMPLEMENTATION OF FOREST-RELATED DECISIONS OF THE UNITED NATIONS CONFERENCE ON ENVIRONMENT AND DEVELOPMENT AT THE NATIONAL AND INTERNATIONAL LEVELS, INCLUDING AN EXAMINATION OF SECTORAL AND CROSS-SECTORAL LINKAGES

Note verbale dated 4 September 1996 from the Permanent Representative of Finland to the United Nations addressed to the Secretary-General

The Permanent Representative of Finland to the United Nations has the honour to transmit herewith the summary report of the Intergovernmental Seminar on Criteria and Indicators for Sustainable Forest Management,* which was held from 19 to 22 August 1996 in Helsinki, Finland. The Seminar was organized by the Government of Finland in collaboration with FAO and other concerned intergovernmental and non-governmental bodies in response to the invitation extended in its first session by the International Panel on Forests to Governments and organizations to arrange activities related to the work of the Panel.

The expert-level Seminar consisted of plenaries, working sessions and a panel discussion. The open-ended Seminar was attended by 155 experts from 55 developed and developing countries and from 20 intergovernmental, international and non-governmental organizations representing Governments, forest owners, forest industry, environmental and development organizations, indigenous people and research organizations.

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* Circulated in the language of submission only.

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In order to contribute to the work of the Intergovernmental Panel on Forests the Seminar identified key elements for action for further development and use of criteria and indicators for sustainable forest management. The Seminar background document and the final document, including this summary report, will be self-standing working documents on the present status of the development and existing and potential uses of criteria and indicators for sustainable forest management. The Seminar recognized that neither this summary report nor the final report, to be published later, would necessarily represent all the views of the participants.

It is the wish of the organizers that the summary report be distributed as an official document at the third session of the Intergovernmental Plan on Forests, to be held in Geneva from 9 to 20 September 1996. The Spanish and French translations of the summary report will become available for circulation among the missions later.

Intergovernmental Seminar on Criteria and Indicators
for Sustainable Forest Management
August 19–22, 1996, Helsinki, Finland

SUMMARY REPORT

of the Intergovernmental Seminar on Criteria and Indicators for Sustainable Forest Management

22 August 1996

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PREAMBLE

The Intergovernmental Seminar on Criteria and Indicators for Sustainable Forest Management (ISCI Seminar) was held in Helsinki, Finland August 19 to 22, 1996. The open-ended expert Seminar was hosted by the Government of Finland and it was organised in collaboration with the Food and Agriculture Organisation of the United Nations (FAO) and other concerned intergovernmental and non-governmental bodies. The Seminar supports the work of the *ad hoc* Intergovernmental Panel on Forests of the UN Commission on Sustainable Development (CSD) and especially its programme element III.2 "Criteria and indicators for sustainable forest management".

The Chapter 11 of Agenda 21 of the UNCED calls for the formulation of scientifically sound criteria and guidelines for the management, conservation and sustainable development of all types of forests. Criteria and indicators for sustainable forest management at the national level have been developed within five ongoing regional and international initiatives; the International Tropical Timber Organisation (ITTO), and the Helsinki, Montreal, Tarapoto and Dry-Zone African processes. The Third Session of the Commission for Sustainable Development considered the issue of criteria and indicators for sustainable forest management as one of the priority areas for the work of the Intergovernmental Panel on Forests.

The Seminar reflected wide national and international interest in promotion of sustainable forest management by developing and implementing criteria and indicators for sustainable forest management and it aimed at promoting and encouraging national implementation of criteria and indicators, studying the feasibility of their further development and examining their comparability and international compatibility.

A group of international experts forming the international contact group contributed to the preparation of the Seminar. On the basis of this guidance, the Background document was prepared and distributed to participants before the Seminar in order to provide an in-depth presentation on the issue of criteria and indicators for sustainable forest management and thus to facilitate discussions during the Seminar.

The open-ended Seminar was attended by 155 experts from 55 developed and developing countries and from 20 intergovernmental, international and non-governmental organisations representing governments, forest owners, forest industry, environmental and development organisations, indigenous people and research.

The opening address was given by Dr. Kalevi Hemilä, Minister of Agriculture and Forestry of Finland, followed by keynote speeches by Sir Martin Holdgate, Co-Chairman of the Intergovernmental Panel on Forests, Dr. David Harcharik, Assistant Director-General of the Food and Agriculture Organisation, Mr. J.E.K. Aggrey-Orleans, Assistant Director of the International Tropical Timber Organisation and Dr. Jag Maini, Head and Co-ordinator of the Secretariat of the IPF. Mr. Pekka Patosaari from Finland acted as the Chairman of the Seminar. Ms. Mary Coulombe from the USA and Dr. Toga Silitonga from Indonesia chaired the Working Sessions and Dr. Juste Boussienget from Gabon guided the panel discussion. The Chair was facilitated by Dr. Duncan Poore, Mr. Heikki Granholm and Ms. Laura Cottle.

The ongoing international and regional initiatives, such as the ITTO, Helsinki Process, Montreal Process, and Tarapoto Proposal and UNEP/FAO Dry-zone Africa initiative reported on development of national level criteria and indicators for sustainable forest management for their specific regional economic, ecological, social and cultural conditions. A number of countries and organisations shared their experiences in adapting these internationally or regionally developed criteria and indicators to their specific national conditions and implementing criteria and indicators for sustainable forest management in their national forest policy. Substantial discussions took place in two working sessions which dealt with four specific tasks:

Session 1: Implementation of criteria and indicators for sustainable forest management

Task 1A: Development and implementation of criteria and indicators for sustainable forest management

Task 1B: National capacities in the development and implementation of criteria and indicators for sustainable forest management

Session 2: Comparability and international compatibility of criteria and indicators for sustainable forest management

Task 2A: Possibilities for comparability and international compatibility of criteria and indicators for sustainable forest management

Task 2B: Research and information needs for the comparability and international compatibility of criteria and indicators for sustainable forest management

Each Session sought to identify and discuss the key issues on these tasks. The part "Needs and Potentials" of the Seminar Background document was considered as an indicative guideline to facilitate and structure the discussions. The Seminar Background document and the Final document including this Summary report of the Seminar will be self-standing working documents on the present status of the development and existing and potential uses of criteria and indicators for sustainable forest management. The Seminar recognised that neither this Summary report nor the Final report, to be published later, will necessarily represent all the views of the participants.

In order to contribute to the work of the Intergovernmental Panel on Forests, the ongoing initiatives on criteria and indicators and the international dialogue on sustainable development, the Seminar identified some key elements for action for the further development and use of criteria and indicators for sustainable forest management. A number of issues were specially emphasised.

MAIN CONCLUSIONS AND KEY ELEMENTS FOR ACTION

CONCLUSIONS

Criteria and indicators are useful tools, designed ultimately to support the improvement of the quality of forest management as an integral part of the sustainable development of the nations in which they occur. They accomplish this by providing a measure of the state of forests and their management, and thus may be used to assess progress towards the achievement of sustainable forest management.

The potential benefits of using criteria and indicators are evident: internationally, by broadening the basis of information and understanding about the quantity and quality of the world's forests; at the national level, as a guide in developing or revising policies and legislation, and in the formulation and refinement of national forest programmes; and at the forest management unit level in assessing the outcome of forest management and in providing a basis for its continuous improvement. There are linkages between these levels, that deserve to be more fully examined and understood.

The development and implementation of criteria and indicators is a dynamic process. Indicators may continually be refined in response to changing public preferences, new scientific information, growing experience within countries and the exchange of experience between them. The international dialogue on criteria and indicators for forests is itself a significant stimulus to improvement. It has led to a clearer and more widely shared understanding of what constitutes sustainable forest management, and of its importance in sustainable development; to a fuller appreciation of the differences between countries and of the problems of others; and to a greater commitment from many parties to improving the scope and quality of management. It provides a basis for international cooperation and for activities supporting sustainable forest management. Moreover, it is providing important directions for research, and a corresponding assessment of the relative value and practicability of the indicators which have already been chosen.

It would be helpful if those countries that are not yet engaged in one or other of the existing processes could become involved as soon as possible, particularly countries with special characteristics and problems, such as low forest cover. Such countries will be able both to benefit from the experience of the existing processes and to bring new insights, but each should also be free to develop criteria and indicators within the context of its own conditions. Many countries, however, whether members of existing processes or those becoming newly engaged, are likely to require assistance to enable them to reap the full benefits of participation.

It is important that an immediate start should be made in the practical implementation of criteria and indicators, even though they may still be imperfect and incomplete. This will lead to refinement and improvement based on experience. Not all data need be generated specifically for this purpose; some national and international statistics may be relevant, and information collected for international agreements, such as the International Tropical Timber Agreement, and the Biological Diversity, Climate Change and Desertification Conventions is likely to be useful.

The question of comparability and international compatibility of criteria and indicators is one that is difficult to resolve. There is already some degree of comparability in the data collected for the Global Forest Resource Assessment. This should be expanded to include additional parameters, provided that such additions do not interfere with the improvement of existing data sets. In relation to criteria and indicators, there are some areas, such as definitions and units of measurement, in which immediate progress can be made; but other areas pose greater difficulties. There will, however, be benefits in taking advantage of commonality, wherever it is recognised.

KEY ELEMENTS FOR ACTION

The following items, not listed in any particular order of priority, are drawn to the attention of the IPF as key elements for action.

The IPF may wish to:

- Recognise criteria and indicators for sustainable forest management as an important forest policy tool in guiding and assessing progress towards sustainable forest management. The process of developing, implementing and reporting of criteria and indicators for sustainable forest management should be commenced, even though shortfalls and gaps may exist.

- Acknowledge that differences among countries in socio-economic development will have a direct impact on the process of development and implementation of criteria and indicators for sustainable forest management. Technical and financial assistance in support of the implementation of criteria and indicators for sustainable forest management should be encouraged, improved and broadened.

- Recommend that criteria and indicators be integrated into National Forest Programs or other relevant policy frameworks, and should thus directly contribute to the decision-making process by supporting and directing policies for the conservation and sustainable development of natural renewable resources, based on prevailing conditions and national priorities.

- Recommend that linkages be established, and harmonisation of the data requirements between international initiatives on criteria and indicators for sustainable forest management and different conventions and other processes and instruments related to forests be encouraged. In order to avoid duplication, close linkages could be forged with action taken in response to other chapters of Agenda 21 and within the framework of international Conventions, thus making full use of existing financial mechanisms, and facilitating the transfer of technologies and the sharing of experiences. In this context, efforts should be made at international and national levels to use criteria and indicators for reporting, to streamline reporting requirements and to simplify the reporting process. Full use should be made of all available information and national statistics.

- Recognise countries presently collaborating in international processes are in different stages of development and implementation of national level criteria and indicators; some countries have still to join these efforts. All countries are encouraged to undertake concerted action, individually or jointly, as appropriate, to further action in this field. Developing countries which have only recently joined such processes, or which are about to join, should, as appropriate, be assisted through action aimed at: poverty alleviation; institutional strengthening; human resource development, with special consideration to gender issues and to education and training at all levels; establishment of mechanisms for increased public participation; research and technology transfer; research networking; ensuring access to, dissemination and exchange of information; development of plans and programmes; and field-level testing of criteria and indicators for sustainable forest management.

- In view of the importance and utility of further developing and implementing criteria and indicators for sustainable forest management and promoting comparability among existing sets of criteria and indicators and among processes, address the need for common understanding of the terms, concepts and processes related to their development and application, including:

  - definitions of essential terms;
  - units of measurement to be used;
  - methods for data assembly, storage, accessibility and dissemination;
  - methods for measurement and recording for selected indicators.

- Recognising and building on the conceptual similarities and many common elements among existing regional and international sets of national level criteria and indicators for sustainable forest management, consider ways to further promote a common understanding of sustainable forest management and to foster mutual recognition of these criteria and indicators as tools for assessing trends in forest management and conditions at the national level, for example through increased liaison among existing processes, transparency in reporting and the development of common concepts, terminology and methods.

- In order to promote the development of criteria and indicators for sustainable forest management at the national level, address the need to provide guidance and to facilitate scientific collaboration in new and ongoing initiatives, building on experiences already gained.

- In the context of research to further the development of criteria and indicators for sustainable forest management, consider ways to promote research relating to indicators for sustainable forest management in the following priority areas. These, not listed in any particular order, include: approaches to measuring biological diversity; approaches to measuring and valuing the production of non-wood forest products; approaches to measuring non-market benefits; approaches to effectively gathering information relating to soil and water conservation; approaches to measuring fragmentation of forests and its impacts; predicting impacts of human intervention on forests; cross-sectoral factors and impacts; development of indicators at the forest management unit level; methodologies for aggregating data at the forest management unit level to higher levels; linkages among indicators at various levels; impacts of different forest management systems on sustainable forest management; and social dimensions of forest management, including land security.

OUTCOME OF THE WORKING SESSIONS [1]

SESSION 1: IMPLEMENTATION OF CRITERIA AND INDICATORS FOR SUSTAINABLE FOREST MANAGEMENT

TASK 1A: DEVELOPMENT AND IMPLEMENTATION OF CRITERIA AND INDICATORS FOR SUSTAINABLE FOREST MANAGEMENT

The working session was chaired by Ms. Mary Coulombe from the USA. The rapporteur for the task was Mr. Maurice Mullen from Ireland and the work was facilitated by Mr. Eduardo Mansur from IUCN. Ms. Tiina Vähänen acted as a secretary.

Benefits and possibilities

Criteria and indicators for sustainable forest management are used for describing and monitoring the state of forests and forest management. They can be used as a systematic evaluation and follow-up tool for assessing progress towards sustainable forest management world-wide.

There is substantial benefit for countries in the development and implementation of criteria and indicators for sustainable forest management in regard to forest policy formulation and revision, management planning and practices.

Criteria and indicators developed within the international initiatives provide a framework for appropriate adaptation and national implementation of criteria and indicators for sustainable forest management.

The wide availability of information and participation at local, national and international levels in the processes of developing and implementing criteria and indicators encourages greater understanding, communication and commitment to sustainable forest management.

Publication of results increases wider political awareness and public participation, and commitment to sustainable forest management, and it also helps other countries in their processes of implementing criteria and indicators for sustainable forest management.

Criteria and indicators for sustainable forest management are a valuable tool to stimulate dialogue and bring together various interested parties at all levels. The ongoing international discussions and initiatives have helped countries to focus on important elements of sustainable forest management in policy making and its implementation. They have also, in the context of wider international co-operation, brought about better understanding of the various elements of sustainable forest management and its significant role in the attainment of overall sustainable development.

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1 The following reports reflect the discussions which took place in each of the Working Sessions. They are not intended to represent a consensus of the participants.

The benefits provided by criteria and indicators for sustainable forest management must be understood and appreciated in all levels (local, national and international). There is a need for broad political commitment at all these levels to fully implement criteria and indicators.

Menu of options

Need for immediate development and implementation of criteria and indicators for sustainable forest management

Criteria and indicators for sustainable forest management should be recognised as an important forest policy tool in guiding and assessing progress towards sustainable forest management. The process of developing, implementing and reporting of criteria and indicators should be commenced even though shortfalls and gaps may exist.

More effective engagement of all interested parties should be promoted to assist in the development, refinement and implementation of criteria and indicators for sustainable forest management.

To further encourage the implementation of criteria and indicators for sustainable forest management, there is a need to raise awareness and commitment amongst forest professionals, policy makers and in the wider community. Facilities for exchanging technical information on criteria and indicators for sustainable forest management and its inclusion on forestry school curricula should be promoted.

Criteria and indicators for sustainable forest management should be developed in an open and participatory way. Their potential role as a conflict resolution instrument should also be recognised.

Assistance for the development and implementation of criteria and indicators for sustainable forest management

Countries have different constraints and they are at different stages in the implementation of criteria and indicators for sustainable forest management: the implications of this should be fully recognised.

Sufficient value should be given to national overall development priorities in the development of criteria and indicators for sustainable forest.

Financial and technical assistance, as well as institutional strengthening and acquiring experience over time are often a prerequisite for the further development of criteria and indicators for sustainable forest management in many developing countries and for the engagement by those countries and regions not yet involved in the initiatives on criteria and indicators.

The budgets of intergovernmental organisations should include provision for extension programmes and projects on the development and implementation of criteria and indicators for sustainable forest management.

There should be no discrimination, particularly in so far as development assistance from international sources is concerned, against those countries that have not yet engaged in the development of criteria and indicators for sustainable forest management.

Data collection and reporting

Linkages should be established, and harmonisation of the data requirements should be encouraged between international initiatives on criteria and indicators for sustainable forest management and other processes, conventions and instruments related to forests.

An assessment of the data currently available is necessary, at all levels, to support the ongoing work on criteria and indicators for sustainable forest management.

An international meeting should be organised to enable countries to share experiences and explore approaches to developing indicators and to devising cost-effective data collection and monitoring systems at sub-national levels.

There is a need to establish appropriate networks to assist in making information on criteria and indicators for sustainable forest management readily and widely available.

The use of criteria and indicators for sustainable forest management in reporting to international processes and fora on progress towards sustainable forest management should be encouraged.

Other issues

Research is needed to support the development of relevant indicators, in particular concerning social and biodiversity aspects.

There should be focus on linkages between the development and implementation of criteria and indicators for sustainable forest management at national and forest management unit levels. The role of international initiatives and fora in this respect should be identified.

Mechanisms should be developed and strengthened to ensure that benefits are derived by local people and that action is transparent and participatory.

TASK 1B: NATIONAL CAPACITIES IN THE DEVELOPMENT AND IMPLEMENTATION OF CRITERIA AND INDICATORS FOR SUSTAINABLE FOREST MANAGEMENT

The working session was chaired by Ms. Mary Coulombe from the USA. The rapporteurs for the task were Mr. Roberto Samanez Mercado from Peru and Mr. Luiz Carlos Ros Filho from Brazil, and the work was facilitated by Ms. Christel Palmberg-Lerche from FAO. Ms. Marjukka Mähönen acted as a secretary.

General comments

Criteria and indicators are an important tool for guiding and assessing progress in sustainable forest management, which in turn, is an important contribution to overall, national sustainable development.

The development of criteria and indicators for sustainable forest management is a dynamic process: it must be gradual and flexible enough to continually evolve in the light of new and emerging needs, demands, knowledge and capacity.

Although national level and forest management unit level criteria and indicators serve the same goal of sustainable forest management, they do so in different ways. However, national level criteria and indicators can guide the development of criteria and indicators at the forest management unit level and, conversely, application at the forest management unit level can feed information on applicability to the national level. It is, thus, important that criteria and indicators developed at these two levels are not contradictory nor in conflict.

The availability of national institutions, well equipped, staffed and with clear mandates, is essential to the process of developing and implementing criteria and indicators for sustainable forest management.

It is essential to raise awareness and fully incorporate local communities into the decision-making process, as well as in the planning and implementation of work related to criteria and indicators for sustainable forest management. There is, furthermore, a need to create mechanisms which help such communities derive direct benefits from their involvement.

Cooperation between interested countries (horizontal cooperation) can help strengthen action and avoid overlap of efforts.

Menu of options

The following are options for consideration at the National and/or International levels:

To succeed in the long term, sustainable forest management should be implemented within the framework of a sound land use plan and other relevant policy frameworks, built upon consultation with all interested parties.

Criteria and indicators should be integrated into national forest programmes or other relevant policy frameworks, and should thus directly contribute to the decision-making process.

Forest policies and legislation should be reviewed in order to incorporate elements of sustainable forest management identified when developing and implementing the criteria and indicators.

Countries presently collaborating in international processes concerning sustainable forest management are in different stages of development and implementation of national level criteria and indicators. Some countries have still to join these efforts. All countries are encouraged to undertake concerted action, individually or jointly, as appropriate, to further action in this field. Developing countries joining such processes, should be, as appropriate, assisted through action aimed at:

- poverty alleviation;
- institutional strengthening;
- human resource development, with special consideration to gender issues and to education and training at all levels;
- establishment of mechanisms for increased public participation;
- research and technology transfer;
- research networking;
- ensuring access to, dissemination and exchange of information;
- development of plans and programmes;
- field level testing of criteria and indicators for sustainable forest management.

Countries with experience in criteria and indicators should be encouraged to share their experiences with those just starting. A strategy and a programme for institutional strengthening, through a step by step process, should furthermore be elaborated based on national priorities for further action.

A minimum set of priority actions, tailored to prevailing conditions and needs, should be defined in accordance with institutional capabilities and taking into consideration also the possibilities and/or desirability of technical and financial assistance.

Once basic criteria have been agreed upon, feasible, relevant and timely indicators need to be developed which are adapted to the environmental, economic, institutional, social and cultural conditions of each country.

While research is needed to help underpin work related to criteria and indicators for sustainable forest management, development and implementation of criteria and indicators can, in turn, contribute to the identification of priorities for research in sustainable forest management.

There is a need to clearly define terms and concepts used in the development and implementation of criteria and indicators for sustainable forest management in order to increase understanding and promote partnerships, at all levels.

Duplication of effort must be avoided through adequate linkages with other sectors of the economy. In this regard, full use should be made of all available information and national statistics, such as biological diversity and social and economic data.

Close linkages should be forged with action taken in response to other chapters of Agenda 21 and within the framework of international Conventions, thus making full use of existing financial mechanisms, and facilitating the transfer of technologies and the sharing of experiences. In this context, efforts should be made at international and national levels to streamline reporting requirements and to simplify the reporting process.

It is important to:

- create awareness of the important role of criteria and indicators in guiding and assessing sustainable forest management, and recognition of its potential role in helping to achieve national sustainable development;

- when developing national plans and programmes, fully utilise existing traditional knowledge, and recognise and compensate forest dependent communities for their contribution of such knowledge; and

- ensure that national and forest management unit level criteria and indicators, designed to serve sustainable forest management in different ways, are not in conflict or contradictory.

SESSION 2: COMPARABILITY AND INTERNATIONAL COMPATIBILITY OF CRITERIA AND INDICATORS FOR SUSTAINABLE FOREST MANAGEMENT

TASK 2 A: POSSIBILITIES FOR COMPARABILITY AND INTERNATIONAL COMPATIBILITY OF CRITERIA AND INDICATORS FOR SUSTAINABLE FOREST MANAGEMENT

The Working Session was chaired by Dr. Toga Silitonga from Indonesia. The rapporteur for the task was Dr. Denyse Rousseau from Canada and the work was facilitated by Mr. J.E.K. Aggrey-Orleans from ITTO. Ms. Sari Sahlberg acted as the secretary.

Summary of discussion

The group discussed two distinct issues related to the comparability and compatibility of criteria and indicators for sustainable forest management:

The possibility or need for greater comparability of national level criteria and indicators already defined in existing international processes or to be defined in further processes

The group recognised that existing sets of national level criteria and indicators are conceptually similar and seek to look at forests as ecosystems, address multiple forest uses and benefits and take into account the policy framework needed to facilitate sustainable forest management.

The group agreed that advantage should be taken of similarities between processes.

It was also recognised that each country is characterised by specific ecological, social, economic and cultural conditions and, therefore, may need to further elaborate criteria and indicators specific to national conditions to supplement existing international initiatives. Despite these differences, however, it has been possible to put in place international initiatives which have developed common sets of criteria and indicators for all countries participating in these respective processes.

As many countries have not yet been involved in criteria and indicators processes, and as those countries which are currently involved are just starting implementation of criteria and indicators, it was recognised that it may be premature to try to achieve convergence. It was noted that the various criteria and indicators initiatives may not necessarily converge. Different initiatives will have different emphases in different regional areas and at different jurisdictional levels, depending on the unique requirements of different regions.

Comparable sets of criteria and indicators at the national level were seen as a potential tool to increase trust and confidence among countries. However, there was opposition to the use of national level criteria and indicators to make comparisons between countries.

Recognising that there may be some benefits and potential for comparability among national level criteria and indicators, but that it may be premature to pursue convergence, it was agreed that immediate steps towards the following should be undertaken:

- agreement about the definitions of those terms which seem essential in the various sets of criteria and indicators;
- agreement on units of measurement to be used;
- agreement on methods for data assembly, storage, accessibility and dissemination;
- for certain selected indicators, agreement on methods for measurement and recording; and
- arrangements for transparency in reporting.

In view of the importance and utility of further developing criteria and indicators at various levels, it was pointed out that the Intergovernmental Panel on Forests (IPF) may wish to address the need for a common understanding on the terms, concepts and processes necessary to promote their development.

The group also agreed that it would be useful to extend liaison between processes, promote mutual recognition of the similarities of the various international criteria and indicators processes and continue to encourage countries that are not yet involved in such processes. A specific proposal was made regarding the preparation of a guiding document that could provide scientific support to these countries in developing sets of criteria and indicators.

The need for a core set of criteria and indicators at the global level

It was recognised that there is a need to have a common understanding of what constitutes sustainable forest management and a better knowledge of the status of forests at the global level. However, it was noted that implementation of sustainable forest management at the national level does not necessarily require a core set of criteria and indicators.

It was recognised that agreement on common criteria at the global level might be relatively easy to achieve. However, some participants felt that criteria alone are not sufficient to assess the trends toward sustainable forest management and would have to be complemented by indicators.

It was noted by some participants that there would be value added in defining a small number of key indicators at the global level in order to assess global trends toward sustainable forest management, building on commonalties between the various international processes. Other participants felt it would be premature to develop global indicators since many countries are just beginning to apply criteria and indicators and would not have reliable national level information for some time on many indicators.

Some participants emphasised the danger that a common set of indicators at the global level would not fully reflect the characteristics of sustainable forest management. Other participants indicated that a common set of indicators should not be considered as a definition of sustainable forest management but rather as a step toward defining sustainable forest management.

It was recognised that the various existing international criteria and indicators processes have been put in place in different contexts and respond to different needs, and that a common set of criteria and indicators at the global level would be in addition to these processes and not as a substitute for them.

As an alternative to a common or core set of indicators, the importance of fostering mutual recognition among existing sets of criteria and indicators as tools for assessing trends in forest management and conditions at the national level was recognised.

It was recognised that the Global Forest Resources Assessment (FRA) already includes some parameters providing useful information on the status of forests at the global level.

It was also recognised that the FRA could be improved to include additional parameters/indicators.

The group also felt that better implementation of the current FRA should receive priority as a way of collecting data useful for criteria and indicators.

Key elements for action

In view of the importance and utility of further developing and implementing criteria and indicators for sustainable forest management and promoting comparability among existing sets of criteria and indicators and among processes, the IPF may wish to address the need for common understanding of the terms, concepts and processes related to their development and application, including:

- definitions of essential terms;
- units of measurement to be used;
- methods for data assembly, storage, accessibility and dissemination; and
- methods for measurement and recording for selected indicators.

Recognising and building on the conceptual similarities and many common elements among existing regional and international sets of national level criteria and indicators for sustainable forest management, the IPF may wish to consider ways to further promote a common understanding of sustainable forest management and to foster mutual recognition of these criteria and indicators as tools for assessing trends in forest management and conditions at the national level, for example through increased liaison among existing processes including international scientific consultation, transparency in reporting and the development of common concepts, terminology and methods.

In order to promote the development of national level criteria and indicators for sustainable forest management, the IPF may wish to address the need to provide guidance and to facilitate scientific collaboration in new and ongoing initiatives, building on experiences already gained.

TASK 2B: RESEARCH AND INFORMATION NEEDS FOR THE COMPARABILITY AND COMPATIBILITY OF CRITERIA AND INDICATORS FOR SUSTAINABLE FOREST MANAGEMENT

The Working Session was chaired by Dr. Toga Silitonga from Indonesia. The rapporteur for the task was Mr. Don Wijewardana from New Zealand and the work was facilitated by Mr. Bai-Mass Taal from UNEP. Ms. Taina Veltheim acted as a secretary.

The group agreed on the following areas as priorities for scientific consultation to improve the comparability and compatibility of national level criteria and indicators:

- definitions of those terms which seem essential in the understanding of the various sets of criteria and indicators;
- units of measurement to be used;
- methods for data assembly, storage, accessibility and dissemination;
- methods for measurement and recording for certain selected indicators; and
- transparency in reporting.

It was noted that there are existing data bases on some of these areas and there is a need to build on them. Group's attention was drawn to the Global Forest Resources Assessment 2000 meeting in Kotka, Finland in June 1996, where the issue was considered.

In the context of research to further the development of criteria and indicators for sustainable forest management, the IPF may wish to consider ways to promote research relating to indicators for sustainable forest management in the following priority areas:

- approaches to measuring biological diversity;
- approaches to measuring and valuing the production of non-wood forest products;
- approaches to measuring non-market benefits;
- approaches to effectively gathering information relating to soil and water conservation;
- approaches to measuring fragmentation of forests and its impacts;
- predicting impacts of human intervention on forests;
- cross-sectoral factors and impacts;
- development of indicators at the forest management unit level;
- methodologies for aggregating data at the forest management unit level to higher levels;
- linkages among indicators at various levels;
- impacts of different forest management systems on sustainable forest management; and
- social dimensions of forest management, including land security.

The need to identify case studies of positive interaction of local populations and forests was mentioned. It was also noted that research and development could assist in increasing national capacity to implement criteria and indicators and promote sustainable forest management.

The need to keep indicators under review in order to reflect improved understanding and scientific knowledge was noted. It was also considered important to establish and gain experience on the use of the initial set of indicators before any changes are considered. The need to harness and synthesise existing information and research results was recognised by the group. In this context, the importance of sharing experiences, information exchange, use and dissemination was stressed.

The need to find cost effective ways of gathering data relating to indicators was highlighted. In this respect, drawing on the information gathered in other fora was regarded as a useful option.

It was urged that involving scientists early in the process of further developing and applying indicators is important in obtaining a broad range of options to meet data needs. It was recognised that some indicators are policy oriented and do not lend themselves to strict scientific approaches. For such indicators it was regarded useful and practical to use other forms of measurements.

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